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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,480	01/09/2002	Peter Hofstra	15076.00003	9159

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EXAMINER
KRISHNAN, SUMATI

ART UNIT	PAPER NUMBER
2875	

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/030,480	Applicant(s) HOFSTRA ET AL.	
	Examiner Sumati Krishnan	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-2 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobrowolski et al(US 5049780) in view of Michio (EP 0838976).

Regarding claims 1, 13 and 15, Dobrowolski discloses an electroluminescent device comprising a transparent front electrode, a rear electrode, an EL layer disposed between said electrodes, and an optical interference member disposed behind the rear cathode (see element 16). See column 6 lines 10-20. The limitation that the optical member is for passivating and reducing the reflectance is not given any patentable weight because it is functional language. Dobrowolski does not disclose a transparent rear electrode. However, Michio discloses an EL device comprising two transparent electrodes. Michio teaches that it is advantageous to have two transparent electrodes because the brightness of the device is increased due to the light being able to exit from both sides of the device. Dobrowolski discloses a need for an EL device with increased brightness, and even discloses that that the optical member 16 should not absorb all wavelengths of light that will lend themselves to increasing the brightness of the device. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used Michio's transparent rear electrode in place of Dobrowolski's opaque rear electrode in order to increase brightness of the EL device.

Regarding claim 2, Michio discloses that the EL layer comprising an organic material.

Regarding claim 14, Dobrowolski discloses the optical interference member, element 16 deposited through vacuum deposition, see column 11 lines 43-46.

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dobrowolski et al(US 5049780) in view of Michio (EP 0838976) further in view of Mental (US 4617195). Dobrowolski and Michio together disclose the EL device of claim 1, but do not disclose the EL layer being inorganic. However, Mental discloses an EL device having phosphors of either organic or inorganic materials. It would have been obvious to one of ordinary skill in the art to have used an inorganic layer in place of the organic layer of Michio because both produce the same effect, and both are used respectively in the art to suit different applications.

3. Claim 4-6 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrows (US 5856031) in view of Michio (EP 0838976) in further view of Dobrowolski et al (US 5049780).

Regarding claim 4, Burrows discloses a kit for retrofitting onto an EL device having two electrodes with an EL layer disposed in between the two. Burrows does not explicitly disclose both electrodes as substantially transparent, but does disclose two electrodes at least one of which is translucent. Michio discloses an EL device comprising two transparent electrodes. Michio teaches that it is advantageous to have two transparent electrodes because the brightness of the device is increased due to the light being able to exit from both sides of the device. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used Michio's transparent rear electrode in the invention of Burrows in order

to increase brightness of the EL device. Burrows' kit comprises an optical interference member (filters 50 and 51) formed "on" a substrate (17). Burrows' optical interference member serves to reduce the reflectance of ambient light toward the viewer by absorbing some of the wavelengths thereof, but would not serve as a passivation layer. However, Dobrowolski discloses an optical interference member that serves as a pasivation layer as well, see for example, figure 1 element 16 and column 10 lines 1-15. Dobrowolski's optical interference member comprises a partially absorbing film, a reflecting layer and a transparent layer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used Dobrowolski's optical interference member in place of Burrows' interference member, in the invention of Burrows and Michio, in order to have a layer that performs multiple functions instead of just one, thereby increasing utility without increasing complexity.

Regarding claim 5, Dobrowolski's optical interference member comprises an anti-reflective layer, see column 10 lines 1-15.

Regarding claims 6 and 10, Dobrowolski's optical interference member comprises a semi-absorbent layer, a transparent layer, and a reflecting layer. See column 9 lines 59-61, column 10 lines 1-15 and abstract.

Regarding claim 9, Dobrowolski discloses an additional optical interference member (element 14) between said EL layer (10) and said rear electrode (8)

4. Claims 7-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrows (US 5856031) in view of Michio (EP 0838976) in further view of Dobrowolski et al (US 5049780) in further view of Murayama et al (US 5227252). Burrows, Michio and

Dobrowolski disclose the kit defined in claim 4. None, however, specifically disclose the material of the EL layer being what is claimed in either of claims 7 or 8. However, it is well known in the art to provide a luminescent layer made out of tris(8-hydroxyquinoline aluminum) as well as doped tri(8-hydroxyquinoline aluminum). See, for example, Murayama who discloses the use of both in the disclosure (see column 2 lines 40-65). It would have been obvious to one of ordinary skill to have used the luminescent material as disclosed by Murayama in the invention of Burrows, Michio and Dobrowolski because of its good luminous efficiency.

Regarding claim 11, Murayama also discloses the electroluminescent element to be polymer based, see column 3 line 5.

5. Claims 12, and 16- 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrows (US 5856031) in view of Michio (EP 0838976) in further view of Dobrowolski et al (US 5049780) in further view of Kruskopf et al (US 5194027).

Regarding claims 12, 16-17, and 20, Burrows, Michio, and Dobrowolski together disclose the kit of claim 4, but do not disclose the limitation existing in claim 12. However, it is well known in the art to provide a spacer to separate two elements of an EL device and to fill the cavity with a silicone gel in order to protect the two elements. See, for example, Kuskopf, col. 3 lines 20-31. In addition, Burrows discloses that the layers of the EL device included in the kit can be suspended with a gel filling in between (see abstract). Therefore, it would have been obvious to one of ordinary skill in the art to provide a spacer, and silicone gel between the spacer and elements of the El device of Burrows, Michio and Dobrowolski in order to in order to protect the elements.

Regarding claim 18, Kruskopf discloses a gel being a two-part silicone gel, see column 4 line 30-35.

Regarding claim 19, it would have been obvious to use the part as disclosed in claim 19 because applicant has not disclosed that this part number provides an advantage, is used for a particular purpose, or solves a stated problem. Further, one of ordinary skill in the art would have expected this gel to perform as well as the silicone gel used by Kruskopf. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the part as stated in claim 19 because it is a common manufacturer's part and widely available.

6. Claim 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobrowolski et al (US 5049780) in view of Tahon (US 6309901). Dobrowolski discloses an electroluminescent device comprising a front electrode (element 2) and a rear electrode (element 8) with a passivating layer (for example, layer 16). Although Dobrowolski does not specifically disclose what material is used for the passivating layer, Tahon discloses silicate gel as a passivation in a flat panel display. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used silicon gel as the material of the passivation layer because it is widely available and used frequently as the material of choice for a passivation layer.

Regarding claim 23, this claim is not given any patentable weight because it is considered a product by process claim limitation. Although product claims can include process limitations, it is the product not the process that is afforded the patentable weight.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumati Krishnan whose telephone number is 703-305-7906. The examiner can normally be reached on 8:00 am - 4:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 703-305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

SK
June 25, 2003